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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,863	11/15/2001	Ivan J. Leichtling	212630	4785
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PERKINS COLE LLP/MSFT			RIVERO, MINERVA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/002,863	<b>Applicant(s)</b> LEICHTLING ET AL.	
	<b>Examiner</b> Minerva Rivero	<b>Art Unit</b> 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In the Remarks filed 4/01/05, Applicants amended claims 1 and 14, cancelled claim 26, and submitted arguments for allowability of the pending claims.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-9, 12, 14-15, 17-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella *et al.* (US Patent 6,434,606) in view of Harris *et al.* (US Patent 6,665,283), further in view of Scott (US Patent 6,665,317).

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3. Regarding claims 1 and 14, Borella *et al.* disclose a method of and computer readable medium for

adding incoming packets of audio data to a buffer in an order generated (*data packet sequence*, Col. 6, Line 66 – Col. 7, Line2);

detecting when the buffer contains an amount of audio data which matches a predetermined threshold amount (*determining whether the buffer is full*, Col. 13, Lines 39-41; Fig. 9, element 1502) and

detecting when a burst has ended (*talk spurt*, Col. 15, Lines 57-63).

However, Borella *et al.* do not explicitly disclose but Harris *et al.* do disclose playing the audio data contained in the buffer either when the buffer contents have reached said predetermined threshold, or when a burst has ended (Col. 1, Lines 41-48).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Borella *et al.* with playing the audio contents in the buffer either when the buffer contents have reached said predetermined threshold, or when a burst has ended, as taught by Borella *et al.* in order to avoid losing audio data due to a full buffer. [Note: Claim is written in the alternative].

Moreover, the combined teachings of Borella *et al.* and Harris *et al.* do not disclose but Scott does disclose determining the amount of jitter accumulated in the last burst (*calculating jitter buffer size*, Col. 7, Lines 47-50); and waiting for a silent period based on the amount of accumulated jitter before playing subsequent bursts (*inserting silence packet based on the jitter buffer size and*

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*playing second burst accordingly*, Col. 7, Lines 47-65; see *bursts* and *inserted silence packet* in Fig. 13).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to modify the combined teachings of Borella *et al.* and Harris *et al.* with determining the amount of jitter accumulated in the last burst and waiting for a silent period based on the amount of accumulated jitter before playing subsequent bursts, as disclosed by Scott, in order to manage the jitter buffer in a way as to maintain the outputted traffic continuous, and maintain the quality and coherency of the voice data being outputted, as further disclosed by Scott (Col. 7, Line 66 – Col. 8, Line 4).

4. Regarding claims 2 and 15, Borella *et al.* do not explicitly disclose but Harris *et al.* do disclose each of said bursts includes an end packet, wherein the step of detecting when a burst has ended comprises detecting an end packet (*end of talk spurt is detected*, Col. 11, Lines 5-9).

Therefore it would have been obvious to one ordinarily skilled in the art at The time of the invention to supplement the teachings of Borella *et al.* with having each of the bursts include an end packet and wherein the step of detecting when a burst has ended comprises detecting an end packet, as taught by Harris *et al.* so as to enable the buffering process by positively identifying speech packets.

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5. Regarding claims 4 and 17; Borella *et al.* further disclose periodically adjusting the threshold (*periodic evaluation of jitter buffers and alternation of jitter buffer used*, Col. 6, Lines 57-65; Col. 10, Lines 62-65).

6. Regarding claims 5 and 18, Borella *et al.* further disclose periodically measuring at a length of a burst; and resetting the threshold to as a factor of the length of the most recently measured burst (Col. 11, Lines 27-32; Col. 17, Lines 25-26; *sensitivity settings*, Col. 19, Lines 18-28; *using first or second order statistics in a buffer selection scheme*, Col. 19, Lines 41-53; *burst basis*, Col, 19, Lines 29-40).

7. Regarding claims 6 and 19, Borella *et al.*, further disclose measuring respective jitter times between packets received during a current sample period to determine a measured jitter amount (*burst basis and current delay*, Col. 19, Lines 29-40; *variation of delay*, Col. 19, Lines 42-51); calculating an adjusted threshold time as a factor of the measured jitter amount (Col. 11, Lines 27-32; Col. 17, Lines 25-26; *sensitivity settings*, Col. 19, Lines 18-28; *using first or second order statistics in a buffer selection scheme*, Col. 19, Lines 41-53; *burst basis*, Col, 19, Lines 29-40); and resetting the threshold to the adjusted threshold time to be applied during a subsequent sampling period (*computationally-desirable jitter buffer and subsequent talk spurt*, Col. 15, Lines 43-56; *resetting jitter buffer*, Col. 11, Lines 24-32).

Regarding claims 7 and 20, Borella *et al.* disclose each sampling period is one of said bursts (*burst basis*, Col. 19, Lines 29-31).

8. Regarding claim 8, Borella *et al.* disclose each sampling period is a predetermined period of time (*sampling rate may have a constant period*, Col. 18, Lines 12-14).

9. Regarding claims 9 and 22, Borella *et al.* disclose setting the threshold at a value during an initial sampling period (*buffers have associated buffer values*, Col. 15, Lines 37-42).

10. Regarding claims 12 and 25, Borella *et al.* further disclose repeating the measuring, calculating and resulting steps during each sampling period (*buffers are periodically evaluated and selected*, Col. 15, Lines 57-67).

11. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella *et al.* (US Patent 6,434,606) in view of Harris *et al.*, further in view of Scott (US Patent 6,665,317) and further in view of Anandakumar *et al.* (US Patent 6,801,532).

12. Regarding claims 3 and 16, the combined teachings of Borella *et al.*, Harris *et al.* and Scott do not explicitly disclose, but Anandakumar *et al.* do

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disclose each end packet includes an end flag (*talkspurt flag or silence flag*, Col. 50, Lines 49-54).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Borella *et al.*, Harris *et al.* and Scott with having each end packet include an end flag as taught by Anandakumar *et al.* in order to facilitate the buffering process by positively identifying speech packets.

13. Claims 10-11 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella *et al.* (US Patent 6,434,606) in view of Harris *et al.* (US Patent 6,665,283), further in view of Scott (US Patent 6,665,317), and further in view of Orleth *et al.* (US Patent 5,872,789).

14. Regarding claims 10 and 23, the combined teachings of Borella *et al.*, Harris *et al.* and Scott do not explicitly disclose, but Orleth *et al.* do disclose determining an average jitter time between at least some of the packets in the sample period (Col. 1, Lines 47-57);

the adjusted threshold time equaling at least the average jitter time (*cells are read at the average value of the jitter that has occurred*, Col. 2, Lines 37-43).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Borella *et al.*, Harris *et al.* and Scott with determining an average jitter time between at least some of the packets in the sample period and the adjusted threshold time



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equaling at least the average jitter time, as taught by Orleth *et al.*, since Orleth *et al.* teach that processing the packets in this manner reduces jitter (Col. 1, Lines 55-56).

15. Regarding claims 11 and 24, the combined teachings of Borella *et al.*, Harris *et al.* and Scott do not explicitly disclose, but Orleth *et al.* do disclose the adjusted threshold time equals more than the average jitter time (correction quantity is added to the average result, Col. 2, Lines 4-9).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Borella *et al.* and Harris *et al.* with having the adjusted threshold time equal more than the average jitter time, as taught by Orleth *et al.*, since this is associated with the successful compensation of probable rounding errors during processing of the packets, as taught by Orleth *et al.* (Col. 2, Lines 10-13).

16. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella *et al.* (US Patent 6,434,606) in view of Harris *et al.* (US Patent 6,665,283), further in view of Scott (US Patent 6,665,317), and further in view of Schuster *et al.* (US Patent 6,360,271).

The combined teachings of Borella *et al.*, Harris *et al.* and Scott do not disclose but Schuster *et al.* do disclose after detecting when a burst has ended,

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waiting for at least a predetermined minimal silent period before playing subsequent packets (*establish a predetermined transmission time and delay packet play-out*, Col. 10, Lines 14-23).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Borella *et al.*, Harris *et al.* and Scott with after detecting when a burst has ended and waiting for at least a predetermined minimal silent period before playing subsequent packets, as taught by Schuster *et al.*, in order to minimize jitter, as further taught by Schuster *et al.* (Col. 10, Lines 12-14).

### **Conclusion**

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (571) 272-7628. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 7/27/05

  
SUSAN MCFADDEN  
PRIMARY EXAMINER